Chicago Metropolitan Agency for Planning

Freight System Planning Recommendations Project

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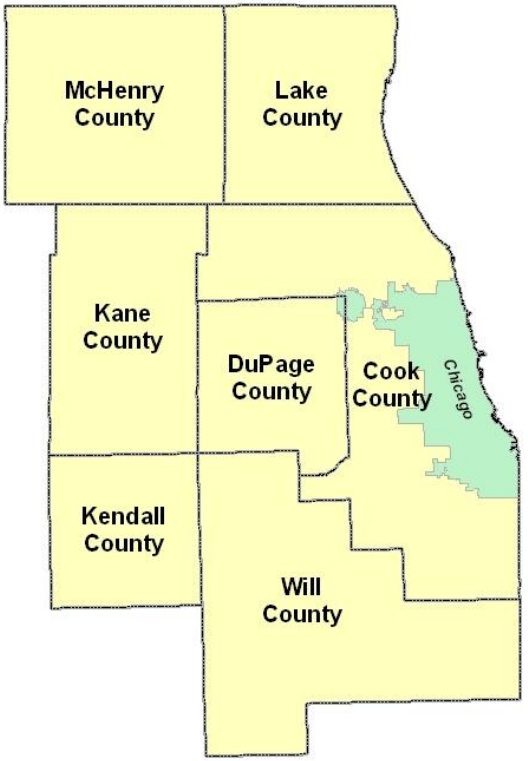
About CMAP

- Established in 2005 by the State of Illinois
- Central purpose is to better integrate planning for land use and transportation.
- Seven counties that make up the third largest U.S. metropolitan region
- 278 municipalities (283 in MPO)
- 8.2 million population
- Numerous school, park, and sanitary districts, along with other agencies



Transportation Planning Context

- Minimum Horizon 20 Years
- Can Evaluate Scenarios
- Regional Evaluation Supporting Local Decisions
- Federal Process

CMAP Freight Planning Role

- The Policy Committee was designated the region's MPO (Metropolitan Planning Organization) in 1974
- The MPO is responsible for preparing the Metropolitan Transportation Plan and Metropolitan Transportation Improvement Program
- We are required to consider freight needs in transportation plans and programs.
- Freight handling has been a core subject of regional plans dating to the *Plan of Chicago (1909).*

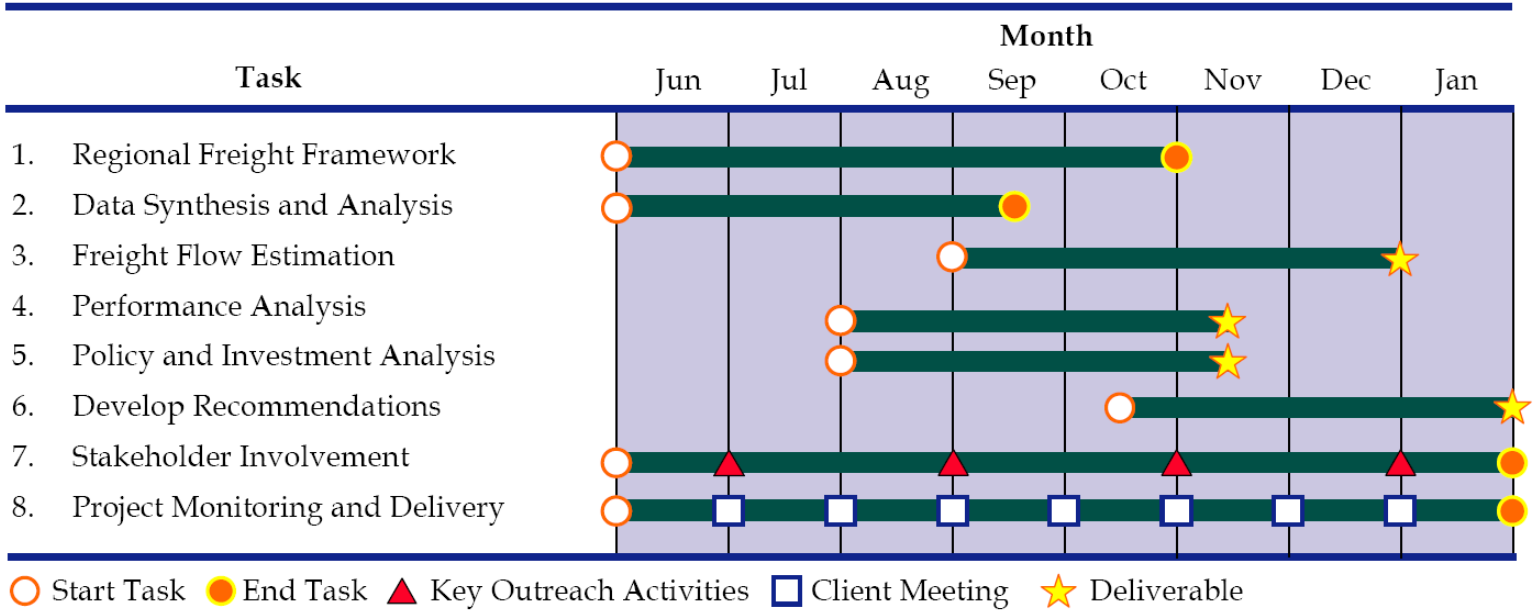
Regional Freight System Planning Questions

- How might freight flows change over the next 30 years?
- What should we do to achieve a resilient and efficient freight system for our region?
- If we invest in our freight system to those ends, what will it mean for our economy and for our communities?

Freight System Planning Recommendations Project

- Planning contract with Cambridge Systematics
- CMAP Freight Committee serves as advisory committee
- Project will prepare recommendations and estimates of impacts for consideration and inclusion in *GO TO 2040* regional comprehensive plan

Schedule


Month
Task
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
1. Regional Freight Framework
2. Data Synthesis and Analysis
3. Freight Flow Estimation
4. Performance Analysis
5. Policy and Investment Analysis
6. Develop Recommendations
7. Stakeholder Involvement
8. Project Monitoring and Delivery
Start Task
End Task
Key Outreach Activities
Client Meeting
Deliverable

Planning Framework

Economic Theme: *"In 2040, the Chicago region's freight system will contribute to the growth, productivity, and changing needs of business and industry by providing cost-effective and reliable access to resources, markets, and labor."*

Logistics Theme: *"In 2040, the Chicago region will serve as an International hub for goods movement."*

Planning Framework (2)

Freight Infrastructure Theme: *"In 2040, the Chicago region's freight infrastructure will provide seamless, efficient connections to markets beyond the region's/state's borders, throughout North America, and to the world."*

Commodity/Vehicle Flows Theme: *"In 2040, the Chicago region's freight system will have operational capacity to accommodate highway, rail, water, and air freight commodity and vehicle flows."*

Planning Framework (3)

Organization and Public Policy Theme: *In 2040, the Chicago region's public and private freight stakeholders will have shared goals and priorities on the process used for identifying the region's freight system needs, priorities, and making investment decisions.*

Environment and Community Impacts Theme: *In 2040, public and private freight stakeholders will contribute positively to the quality of life in metropolitan Chicago.*

Some of Our Data Collection

Data Need	Source
Freight Flows	TRANSEARCH
Socioeconomic Data	CMAP Travel Model Sub-zone Data
Container Terminal Locations	Intermodal Association
Land Use Data	CMAP Land Use Inventory
Roadway Inventory	IDOT/IRIS

Data Need	Source
Truck and Traffic Volumes	IDOT/IRIS, Others
Intermodal Connectors	FHWA
Structures	National Bridge Inventory
Congestion	CMAP Travel Time Indices
Truck Routes and Prohibitions	IDOT and CDOT

Some More of Our Data Collection

Data Need	Source
Clearance Deficiencies	IDOT
Truck Parking	CFIRE Study
Planned Network Improvements	CMAP TIP, RTP, and Highway Network
Railways	NTAD
Rail Volumes	NTAD/ TRANSEARCH*

Data Need	Source
CREATE Corridors	CREATE Project
Airports	NTAD
Air Freight Volumes	TRANSEARCH, FAA
Port Facilities and Water Terminals	NTAD
Volumes and Delay by Lock	Corps of Engineers

Stakeholder Input

Interviews

- Trucking
- Water
- Aviation
- Council of Mayors

Survey

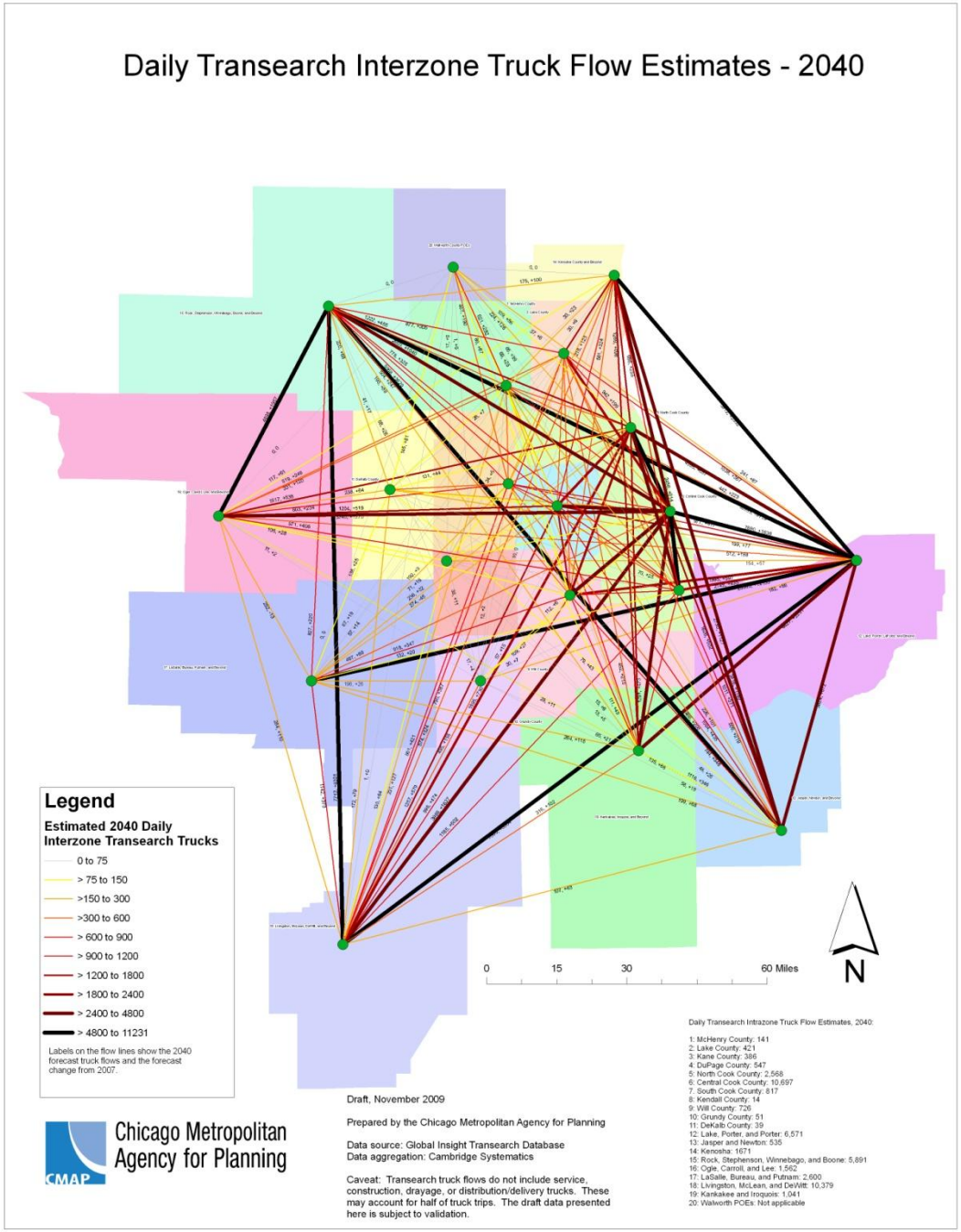
- 74 electronic surveys
- 43% private sector (shipping to 7 continents)
- 38% public sector
- 18% non-profits

Stakeholder Input

- System strengths and deficiencies
- Needed improvements
- Trends
- Funding Options
- Policies
- Workforce Issues

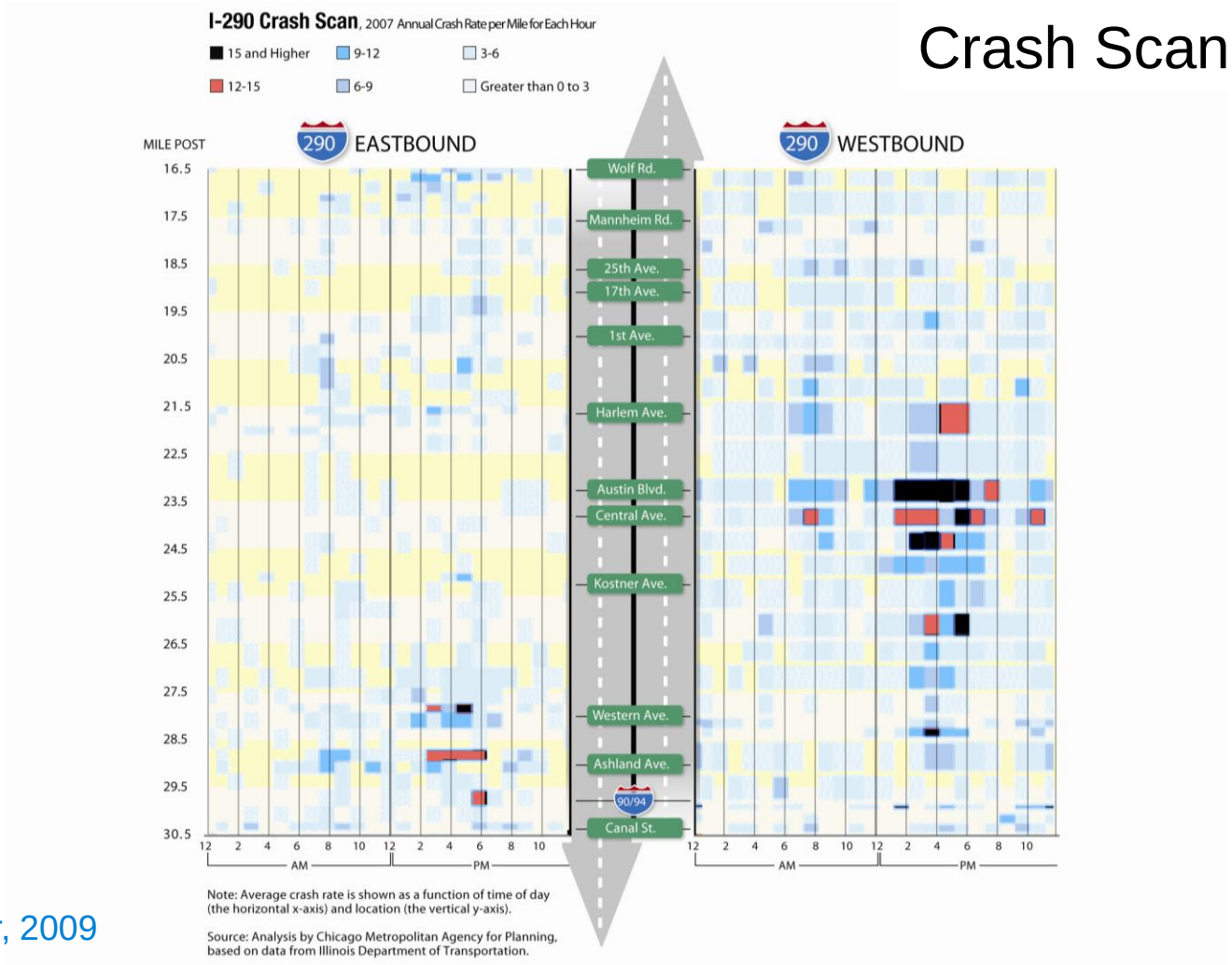
Example: Private and public sector input points to the lack of coordination of truck routes between jurisdictions, and shows the need to commence such coordination.

Example Issue: Freight Flow Forecasts

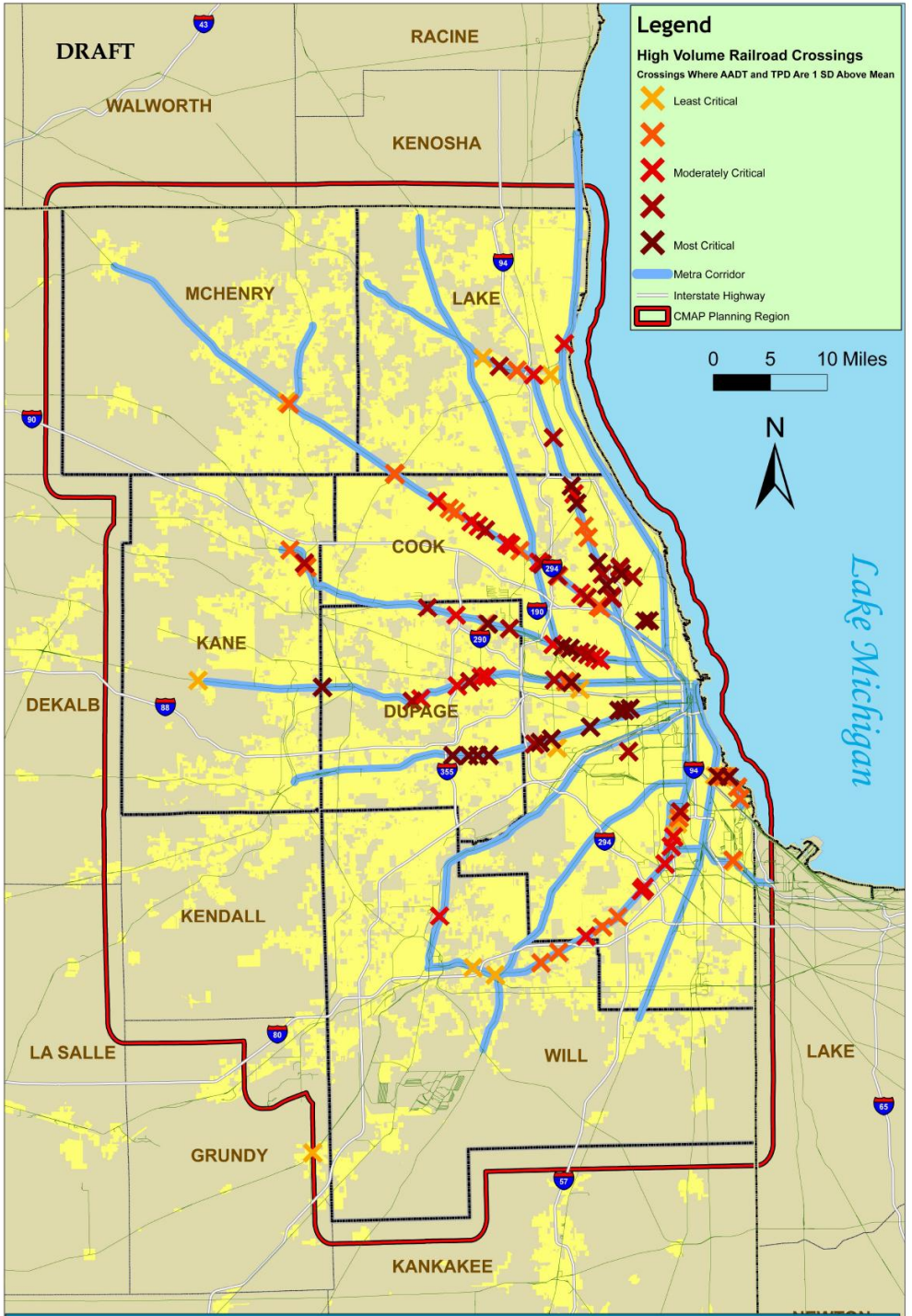


Example Issue: Congestion and Safety

Crash Scan

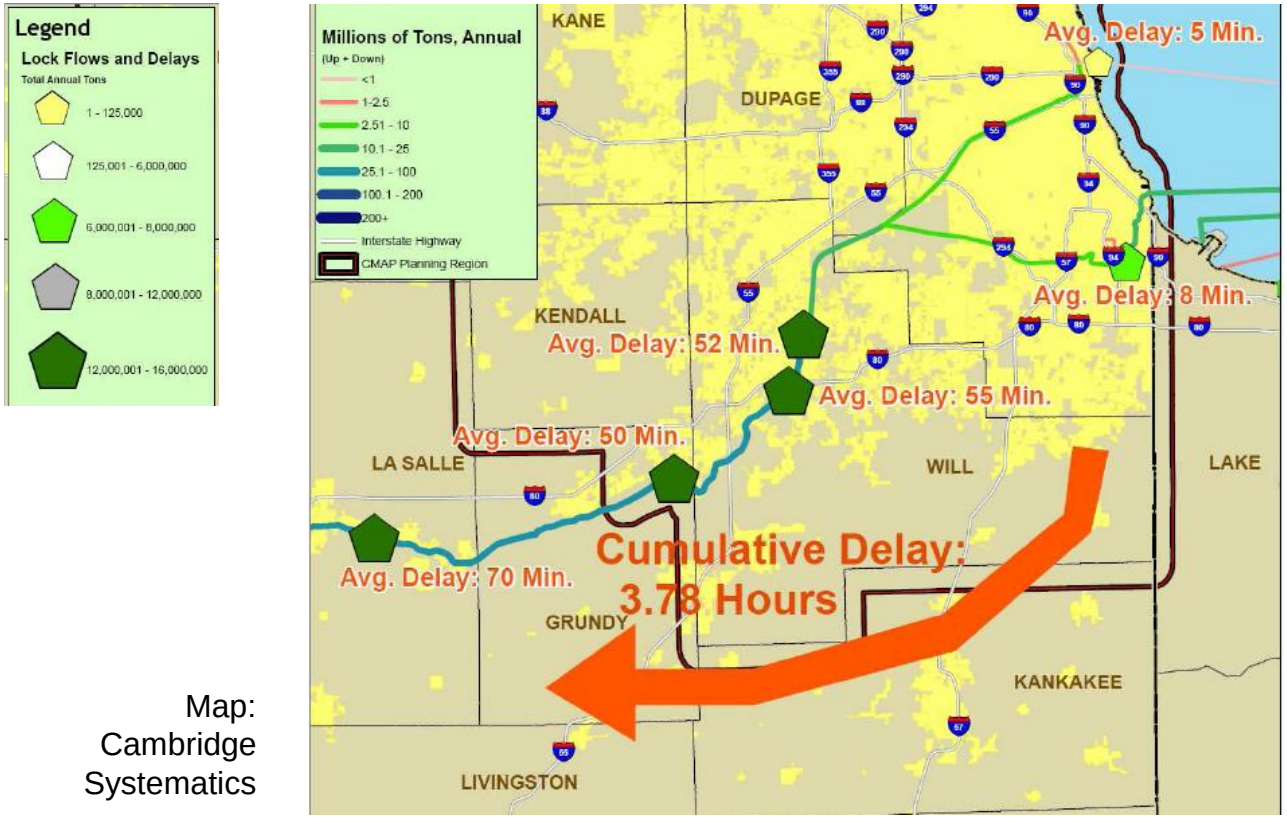


Example Issue: Highway-Rail At-Grade Crossings:



Map: Cambridge Systematics

Example Issue: Waterway Improvements

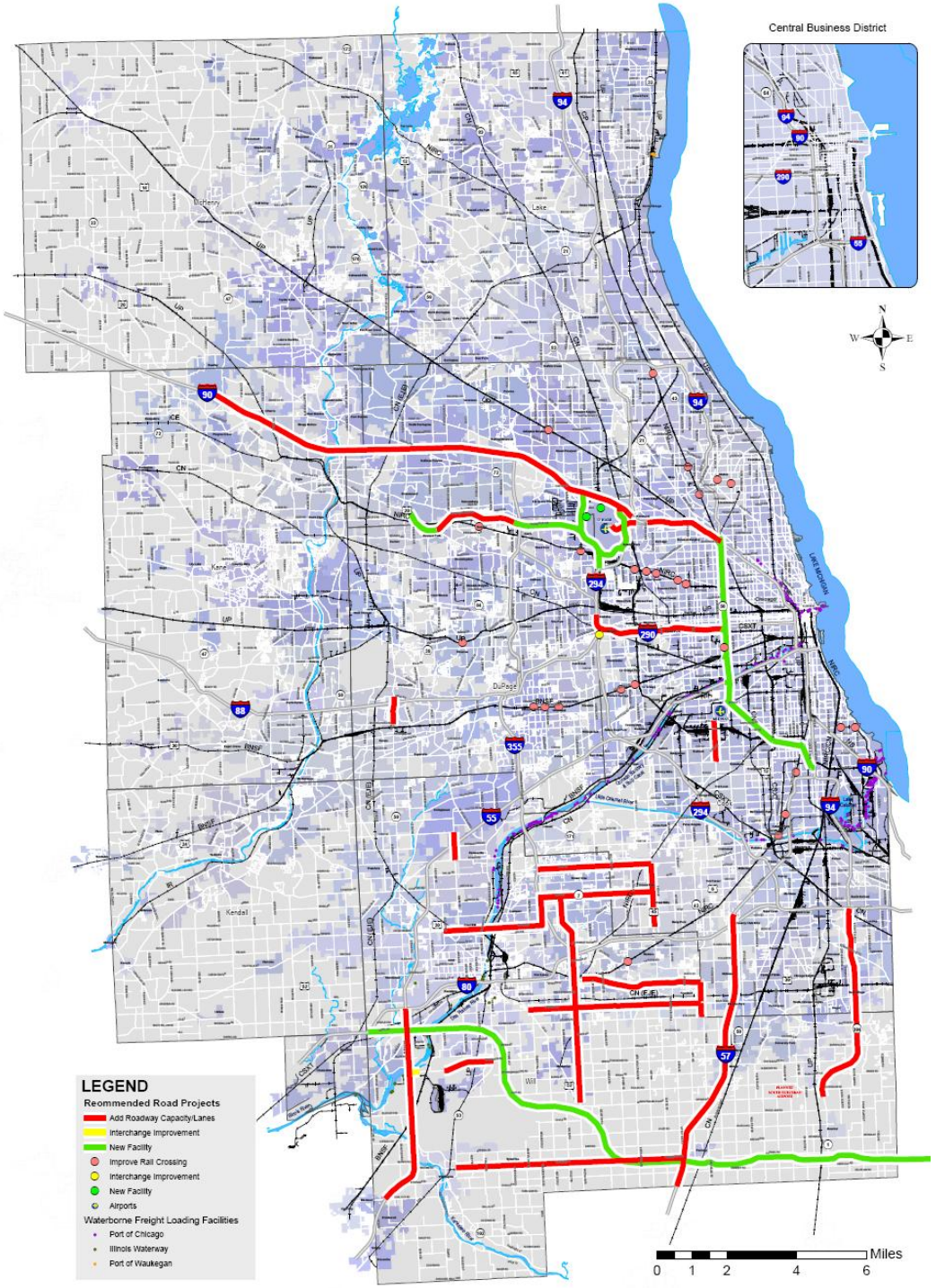


Map:
Cambridge
Systematics

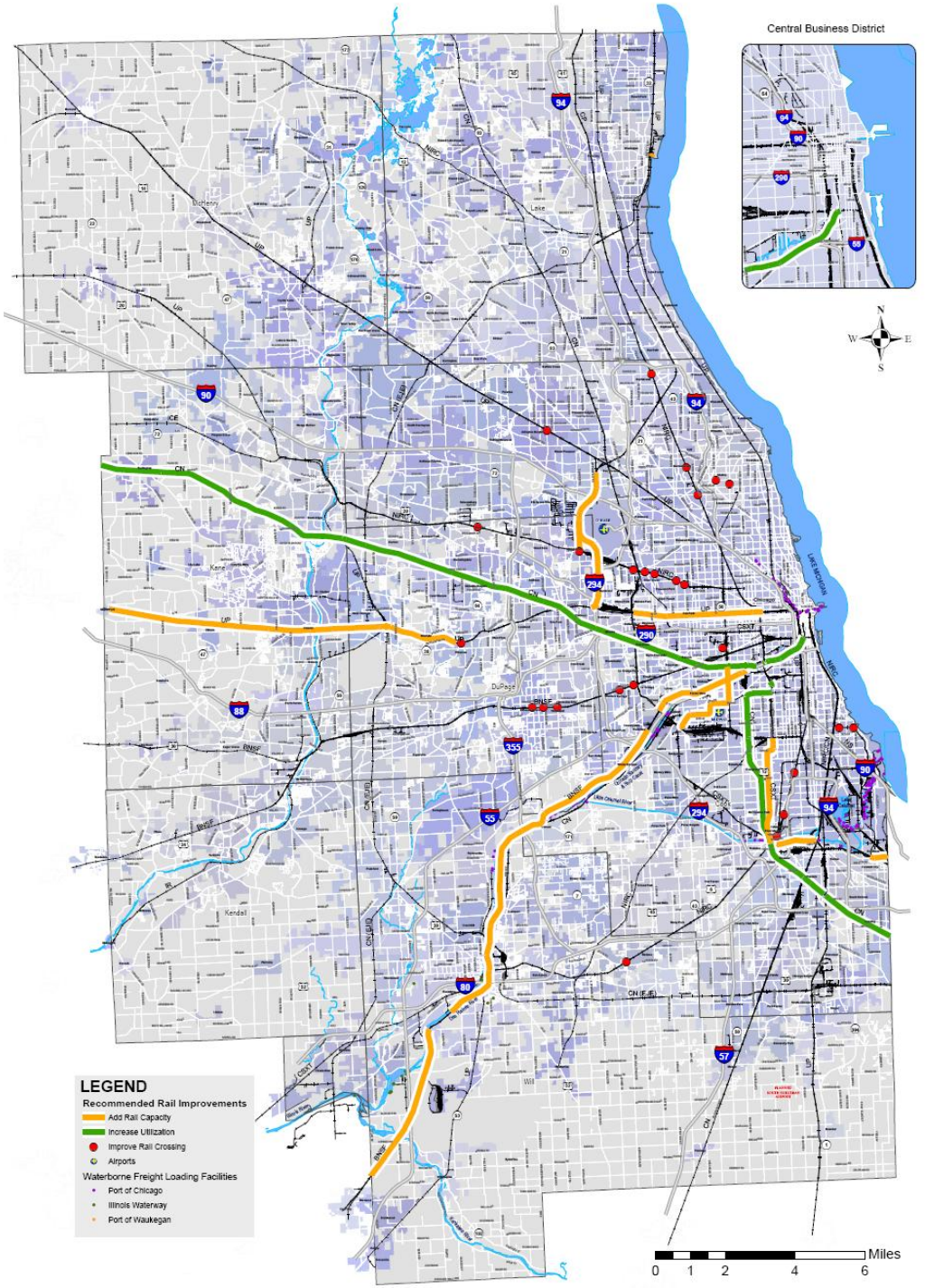
Developing Recommendations

- Sample set of potential capital projects in key corridors
- Policies
- Establish suggested timeframe, lead agencies, and priority

Recommended Highway Improvements (Draft)



Recommended Rail Improvements in Addition to CREATE (Draft)



Sample Policy Recommendations

- Economy: *Identify and promote value added industries and opportunities that could benefit from the region's freight hub status.*
- Industry Logistics: *Identify, assess and implement freight corridors & facilities of regional significance, including clustering of warehousing, distribution and other freight-related centers, based on freight O-D patterns*

Sample Policy Recommendations (2)

- Freight Infrastructure: *Identify opportunities for dedicated freight corridor systems (truckways, truck-only lanes, dedicated NHS connectors, Illiana Expressway)*
- Commodity/Vehicle Flows: *Engage in transportation management to reduce passenger demand and to improve system efficiency on freight corridors*

Sample Policy Recommendations (3)

Organization and Public Policy: *Establish "CREATE" counterpart for trucking industry which could address policy issues such as:*

- *Truck Parking*
- *Regional Delivery Time Coordination*
- *Exploring changes to TS&W limits to allow higher producivity trucks on Illinois highways, weighing economics and safety*
- *Dedicated freight infrastructure, including trucks*

Sample Policy Recommendations (4)

Environmental and community impacts:

Promote lower-emission freight modes and technologies (e.g. Genset locomotives);

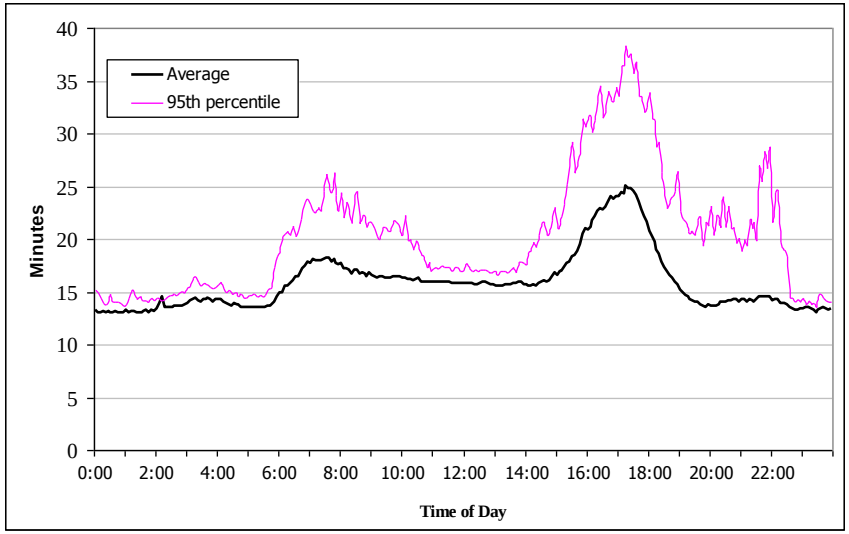
Address the higher wear and tear on freight-impacted road surfaces with increased maintenance efforts

Reduce road user delay at highway-rail grade crossings, through separations (in addition to CREATE projects), if necessary

Promote safety programs such as "Operation Lifesaver" and "No Zone"

Addressing Congestion: Transportation Management

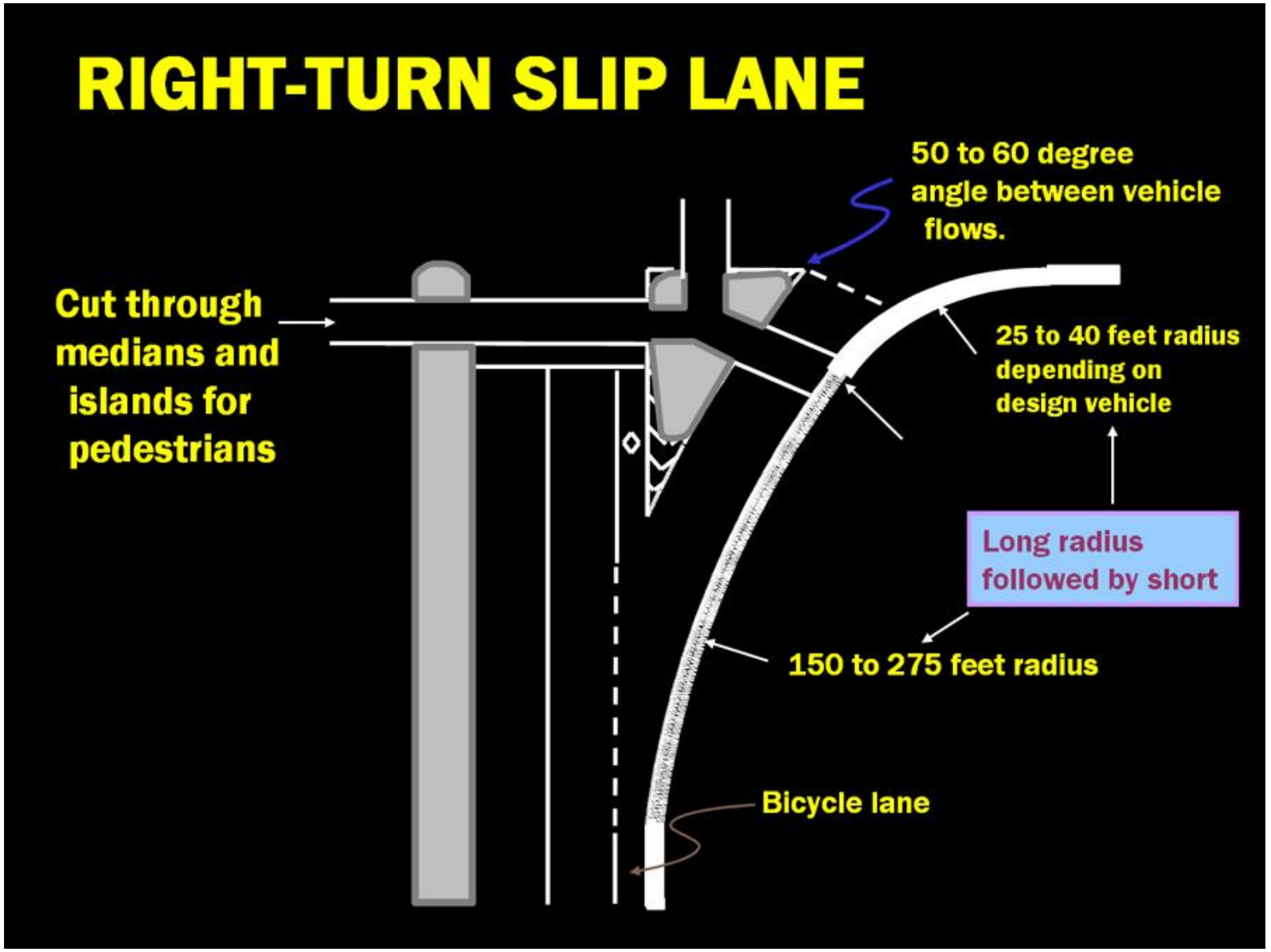
- Demand Management
- Transportation Systems Management, e.g., Incident Management
- Planning for Operations



Addressing Congestion: Congestion Pricing

- Travel behavior is responsive to price
- Road Pricing
  - Managed Lanes
  - Managed Freeways
  - Area/Cordon
- Dynamic
  - Responsive to Real-time Conditions
  - Assumes Real-Time Alternative Mode, Route Choices
- Variable
  - Predictability for Users
- Static

Addressing Congestion: Design and Planning Innovations


RIGHT-TURN SLIP LANE
50 to 60 degree angle between vehicle flows.
Cut through medians and islands for pedestrians
25 to 40 feet radius depending on design vehicle
Long radius followed by short
150 to 275 feet radius
Bicycle lane

Freight System Planning Recommendations

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Thank You